APPENDIX C

PUBLIC SCOPING SUMMARY

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APPENDIX C. PUBLIC SCOPING SUMMARY

Appendix C describes the process followed by the U.S. Department of Energy (DOE) to define the scope of the *Salt Processing Alternatives Supplemental Environmental Impact Statement* (SEIS). It also describes the issues raised during the scoping process, the comments received from the stakeholders of the Savannah River Site (SRS) on the planned SEIS, and the DOE responses to these comments.

C.1 Scoping Process

On February 22, 1999, DOE announced its intent to prepare an SEIS to assess the environmental impacts of constructing and operating a facility to process the salt component of the high-level waste (HLW) stored at SRS (64 FR 8558). The Notice of Intent began a scoping period that extended until April 12, 1999, and announced that DOE would hold scoping meetings in Columbia and North Augusta, South Carolina, during the scoping period. The scoping meetings were subsequently announced in local newspapers.

DOE encouraged SRS stakeholders and other interested parties to submit comments for consideration in the preparation of the SEIS. DOE established several methods for such submittals:

- By letter to the Savannah River Operations Office
- By voice mail using a toll-free telephone number
- By facsimile transmission (fax) using a toll-free telephone number
- By electronic mail (e-mail) to an address at the Savannah River Site
- Orally or in writing at public scoping meetings.

DOE held scoping meetings on the planned SEIS in Columbia, South Carolina, on March 11, 1999, and in North Augusta, South Carolina, on March 18, 1999. Each meeting consisted of an afternoon and an evening session. Each session included an introduction to the National Environmental Policy Act (NEPA) process in relation to the process for selecting a technology for salt processing. Each session also included opportunities to ask questions of DOE officials and to offer comments on the scope of the SEIS for the record. Transcripts of the question and answer and comment portions of the meetings are available for inspection at the DOE Public Reading Room, Gregg-Graniteville Library, University of South Carolina at Aiken, University Parkway, Aiken, South Carolina.

C.2 Summary of Scoping Comments and Issues

During the scoping period, DOE received the following:

- Four comment letters
- One comment e-mail
- One recommendation from the SRS Citizens Advisory Board
- Thirty-two verbal comments from eight individuals at the Columbia scoping meetings
- Twenty-seven verbal comments from nine individuals at the North Augusta scoping meetings.

In these submittals and presentations, DOE identified 93 separate comments. The Department reviewed and categorized these comments into six categories:

- Alternatives
- ITP process
- Impact Evaluation and Analysis
- Criteria and Regulations

- Schedule and Process
- Miscellaneous Topics.

The following paragraphs discuss the comments and provide DOE's responses to them.

The letters are numbered L1 through L4. The SRS Citizens Advisory Board recommendation is numbered R1, and individual comments within the letters are numbered consecutively. The transcript from the North Augusta public meeting is designated TNA and the transcript from the Columbia public meeting is designated TC, with comments numbered consecutively.

Comments About the Alternatives: Twenty-five comments addressed various aspects of the alternatives. Comments included the following:

Comments About the Small Tank Precipitation Alternative:

- The SEIS should describe why the Small Tank Precipitation alternative could be successful, when the ITP process was not. The chemistry of the two processes is the same. Why even consider it? (L1-1, TC-22, TC-23, TNA-14, TNA-16)

DOE Response: The SEIS describes the Small Tank Precipitation alternative and the differences between it and the ITP process. The process is being considered because it shows promise as a viable process. With process controls, the problems evident in the ITP process may be overcome. Research and development efforts are underway to address the known problems with the ITP process.

- For the Small Tank Precipitation alternative, how would benzene generation be controlled and how would the benzene that is generated be managed? (TC-1, TC-29, TC-30, TC-31)

DOE Response: The small tank concept involves two tanks in series, in order to give adequate residence time for the reaction to take place, while at the same time allowing the product to be filtered and sent to the Defense Waste Processing Facility (DWPF) on a schedule to minimize the time that the precipitate sits in the tanks and undergoes chemical decomposition, which produces benzene. Appendix A provides more detail about the process. The tanks can be designed to reduce flammability by using an inert gas atmosphere and continuous cooling. In addition, product would be filtered and sent to DWPF following a residence time that allows the reactions to take place, but does not allow for a great deal of decomposition. Benzene releases will be controlled and would comply with emissions limits.

- Is the salt loading of the glass in the Small Tank Precipitation alternative actually higher than in the ITP case? (TNA-12)

DOE Response: Yes. Because the chemical process would be slightly different, the glass would contain more salt waste. The glass would have to meet certain standards to ensure that waste acceptance criteria for a geologic repository would be met.

Comments About the Ion Exchange Alternative:

- The Ion Exchange alternative should be divided into elutable and non-elutable ion exchange alternatives. For the Ion Exchange alternative, would the salt go through the column as opposed to adding the resin to a tank? How many changes of the resins would be required in a year, and are the spent resins considered HLW (L1-2, TC-20, TC-21, TNA-11, TNA-20)

DOE Response: Elutable ion exchange is not considered a reasonable alternative. This process was evaluated, but eliminated because it did not appear superior to the non-elutable ion exchange process. The process for selecting salt processing technologies for further design and research and development is described in Chapter 2 and Appendix A of the SEIS.

The Ion Exchange alternative being considered would involve passing the salt solution through ion exchange columns. The resin beds have an expected life of about 90 days. The spent resin

would be HLW and would be sent to DWPF for vitrification.

Comments About the Direct Disposal in Grout Alternative:

- The Direct Disposal in Grout alternative should discuss storage vault design and performance and include any changes or upgrades to the existing vault system to safely dispose of the high-cesium grout. The integrity of the room system should be determined. (L1-3, TNA-10, TNA-21)

DOE Response: The description of the Direct Disposal in Grout alternative in Chapter 2 and Appendix A includes a discussion of the vault requirements and design. If the Direct Disposal in Grout alternative is chosen as the salt processing technology, DOE would prepare a Radiological Performance Assessment to describe in detail the expected performance of the vault design and grout mixture over time. This SEIS makes certain assumptions about vault performance, which DOE believes to be reasonable, in order to predict the environmental impacts of this alternative on the basis of currently available information.

- The SRS Citizens Advisory Board is concerned about consideration of the Direct Disposal in Grout alternative and will not favor it unless it is fully justified. They will not accept it as the preferred alternative if the sole reason given is that funds are not available for the other choices. To be acceptable to the Citizens Advisory Board, the preferred alternative must be justified for reasons of technical feasibility, worker safety, and public health and environmental protection. (R-1)

DOE Response: Information on the issues cited by the commentor is included in the SEIS for each alternative. Preliminary cost estimates have been prepared and are included in Section 2.8.3 of the SEIS. Cost does not provide any differentiation between alternatives. Initial estimates of cost are from $900 million to $1.2 billion, such that costs of all the alternatives are in the same range.

- Are the curie measurements total curies, per cubic meter, or something else? (TNA-1)

DOE Response: Measurements of curies are given as total curies disposed of in saltstone for each alternative.

Comments About the No Action Alternative:

- DOE should pursue one of the three technical alternatives rather than No Action. Tank waste is thought to represent the greatest hazard to the offsite environment and public safety and it must be dealt with sooner or later. (TNA-3)

DOE Response: DOE proposes to pursue one of the processing technologies rather than take no action. However, No Action is analyzed under NEPA to provide a basis for comparison of the action alternatives.

- The No Action alternative is inadequately described (in DOE's Notice of Intent). Also, the No Action alternative for this SEIS is different from the No Action alternative for the HLW Tank Closure EIS. (L1-4, L1-10, L1-13, TNA-22, TNA-27)

DOE Response: DOE has revised the No Action alternative from that presented in the Notice of Intent (64 FR 8558) to provide a more complete description and to ensure a consistent approach between the two HLW NEPA reviews. Under the No Action alternative, DOE would continue current HLW management activities, including tank space management, without a process for separating the high-activity and low-activity salt fractions. DWPF would vitrify only sludge from the HLW tanks. Saltcake and salt supernatant would be stored in the HLW tanks and monitoring activities would continue.

- Why would you revisit the No Action alternative (from the 1994 DWPF SEIS) because of this proposed change in a part of the system addressed in the 1994 DWPF SEIS? (TNA-5)

DOE Response: DOE has changed the No Action alternative for this SEIS from that presented

in the Notice of Intent (64 FR 8558). The No Action alternative for the 1994 DWPF SEIS was to not operate the DWPF or related facilities, including the ITP process. DOE decided to operate DWPF, however, in the April 12, 1995, Record of Decision (60 FR 18589-18594) for the Final Supplemental Environmental Impact Statement, Defense Waste Processing Facility. The No Action alternative for this SEIS has therefore been defined as continuing the status quo, which includes operating the DWPF.

- For purposes of analysis, how far into the future do you assess the No Action alternative? (TNA-2)

DOE Response: DOE recognizes that the No Action alternative, continuing the status quo (including tank space management), cannot go on indefinitely in the absence of an operational salt processing alternative. Using evaporators and other existing equipment, DOE believes that tank space could be adequate and that tank closure commitments could be met until about 2010. After that, new tanks would be needed to continue the No Action alternative. Thus, the period through 2023 is used for analysis of the near term impacts of the No Action alternative.

Comments About All of the Alternatives:

- Compare the total curie content and concentrations for all known radioactive low-level burial grounds country-wide with the curie content in the saltstone for all three alternatives (i.e., 26,000 curies in saltstone for the Small Tank Precipitation and Ion Exchange alternatives and 120,000,000 curies for the Direct Disposal alternative). (R-4)

DOE Response: To date, DOE has disposed of about 9,710,000 curies in the SRS Old Radioactive Waste Burial Ground, the Mixed Waste Management Facility, and the Low-Level Radioactive Waste Disposal Facility, and expects to dispose of an additional 5,480,000 curies over the next 20 years from projects other than those analyzed in this SEIS. The ChemNuclear facility at Barnwell, South Carolina, disposes of about 225,000 curies per year, or about 7 million curies since the facility opened in 1974. Information on other facilities is not readily available. DOE estimates that the Small Tank Precipitation, Ion Exchange, and Solvent Extraction alternatives would result in less than 20,000 curies disposed of in saltstone over the life of the project. If the Direct Disposal in Grout alternative were selected, about 120,000,000 curies of cesium would be disposed of onsite in saltstone.

- Each of the alternatives should be evaluated in the same depth. Do not make judgments on some that delete the necessary analysis. (L1-5, TNA-23)

DOE Response: DOE has evaluated each alternative at a similar level of detail, consistent with the available information.

- There should be a long-term risk analysis for each of the alternatives. The analyses should consider loss of institutional control and facility degradation leading to the release of waste contents. Differences in leach resistance of the material to be left at SRS should be included. The materials that would be left at SRS under each alternative should be defined. (L1-6, TNA-24, R-3)

DOE Response: Analyses of the long-term impacts of the alternatives are included in the draft SEIS. For disposal facilities (i.e., the saltstone vaults) a detailed Radiological Performance Assessment is required by DOE Order 435.1 and would be prepared following the selection of an alternative for implementation. Because DOE has no plans for relinquishing institutional control of the SRS or the area immediately surrounding the saltstone vaults, institutional control is considered to apply for each alternative, in accordance with DOE Order 435.1 and DOE Manual 435.1-1. However, for purposes of this NEPA review loss of institutional control was analyzed for all alternatives. A description of the materials and fission products that would be converted to saltstone is provided for each alternative.

- Does the EIS scope include a transfer facility or a transfer mechanism? Does the scope include decontamination and decommis-

sioning of the existing Saltstone Manufacturing and Disposal Facility?

DOE Response: Material transfer mechanisms are evaluated as part of each alternative considered in this SEIS. Because portions of the existing Saltstone Manufacturing and Disposal Facility would be utilized for each of the alternatives, decontamination and decommissioning of the existing facility is not considered in this SEIS.

- The salt fraction is technically a solid, but what is it actually like? (TC-7)

DOE Response: The salt fraction is best described as a slurry.

Comments Concerning the ITP Process: Twelve comments questioned the ITP process.

- In the ITP process, how was benzene generated, why was it not anticipated, and weren't there reports from the Institute for Energy and Environmental Research that indicated the process would not work? (TC-3, TC-4, TC-5, TC-11, TC-12, TC-24, TC-25, TC-26, TC-27, TC-28)

DOE Response: Benzene was generated as a result of the radiolytic and catalytic breakdown of tetraphenylborate (TPB), a chemical used to precipitate cesium from the salt solution. Some benzene generation, from sodium tetraphenylborate radiolytic decomposition and also from its catalytic reaction with copper, was anticipated. HLW was tested to determine its composition and identify elements that might interfere with the reaction. Copper was identified as present in the waste stream and was known to be a catalyst. However, research after the 1996 suspension of ITP operations demonstrated that palladium and potentially other elements present in the HLW tanks, and compounds resulting from TPB decomposition, also contribute to benzene generation.

Several parties raised concerns in the 1980s and early 1990s about the ITP process. DOE's research at that time had indicated the potential problems could be overcome and the process could be successful.

- Was an effort made to look into Hanford HLW management approaches and technologies and potentially avoid the ITP problems? (TC-13, TC-14)

DOE Response: HLW treatment at DOE's Hanford site is not as far along as it is at SRS. Hanford currently has no process available for HLW treatment or stabilization. In addition, HLW at Hanford differs from HLW at SRS. Hanford used several chemical separation technologies, while SRS used only two (one in F Canyon and one in H Canyon). Consequently there is considerably more chemical variability in the Hanford HLW than the SRS HLW. Also, in general, SRS process knowledge and characterization of HLW sent to the HLW tanks is better than that available at Hanford. There was no Hanford experience or technology research from which SRS could learn when the DWPF process, including ITP, was being developed.

- Is the ITP to be used (in the SEIS) strictly as a comparison with the proposed technologies? (TC-2)

DOE Response: DOE has decided to define the No Action alternative as a continuation of the status quo, which does not include operation of ITP. DOE does not consider operation of ITP to be a reasonable alternative.

- Several individuals and groups concluded in the past that the sodium TPB process could fail because of high rates of benzene generation. Alternatives, including alkaline solvent extraction, should be given careful consideration. The commentor would be pleased to assist in the evaluation of alternatives. (L2-1, L2-2, L2-3)

DOE Response: The Small Tank Precipitation alternative involves the use of the same chemistry as the ITP process. However, as described in the SEIS, the continuously stirred tank reactors are expected to allow greater control over the waste residence time and therefore limit the generation of benzene. DOE reviewed a large num-

ber of potential salt processing alternatives, including alkaline solvent extraction. After very careful review, DOE has decided to pursue the four alternatives described in this SEIS, including an alkaline solvent extraction process termed Caustic Side Solvent Extraction. DOE has a number of independent reviewers providing oversight of the technology selection process, and providing technical support to technology research and development efforts.

Comments Related to Impact Evaluation and Analysis: Several comments concerned the evaluation and analysis of potential environmental impacts of the alternatives.

- What is the primary concern for long-term impacts on groundwater? Is it nitrate or technetium? (L1-8)

DOE Response: Because it is an extremely long-lived radionuclide, technetium is expected to outcrop at the point of compliance for the Z-Area saltstone vaults, and it dominates the radiological source term in groundwater over the long term (10,000 years). Nitrate is an important nonradiological contaminant in the short term. Modeling of nitrate behavior in the long term shows that its projected concentrations at points of discharge would not be high enough to cause health concerns.

- The major difference with the Direct Disposal in Grout alternative is that SRS would not remove the cesium from the salt solution that would be disposed of in the Z-Area saltstone vaults. What impact does this have? (L1-9)

DOE Response: If the Direct Disposal in Grout alternative is selected, approximately 120,000,000 curies of cesium-137 would be disposed of in a grout mixture in the Z-Area saltstone vaults. The potential impacts are described in Chapter 4 of the SEIS.

- The planned institutional control should be discussed for each alternative. What will the staff do during this institutional control? How will the life-cycle costs be affected? (L1-11)

DOE Response: DOE has no plans to release any part of the SRS from institutional control. Current and reasonably foreseeable missions extend well beyond 50 years from the present. In accordance with DOE Order 435.1, DOE may establish an appropriate buffer zone based on current plans for institutional control. Permit requirements would require monitoring at 100 meters from the vaults for releases from the Z-Area saltstone vaults. SRS employees would perform maintenance, monitoring, and security functions during the period of institutional control.

- Since implementation time for each of these alternatives will be different and canyon operations will continue generating new waste, the SEIS should discuss waste tank utilization. The risk difference of waste tank leakage must be evaluated. For example, if some alternatives require use of only Type III waste tanks, they would have a different risk than an alternative that would require use of older Type I tanks. The commentor hopes there is no planned use of single-shell tanks. (L1-12)

DOE Response: Waste tank utilization and tank space management are discussed in Chapter 2 and Appendix A of the SEIS. DOE will manage tank space in accordance with the High-Level Waste System Plan. DOE is committed, through the Federal Facility Agreement, to remove waste from tanks on an agreed-upon schedule. DOE intends to manage the selection, construction, and operation of a replacement salt processing facility and current facilities, such that these commitments can be met.

- Are there comprehensive studies planned to both identify (by chromatographic and spectroscopic techniques), and characterize (using cyclic voltammetry or other electrochemical techniques), metal ions that may play significant roles in the catalytic decomposition of sodium TPB? (L4-1)

- Has the formation of a polymeric film or compound been noted in the tanks, and, if so, are studies planned to characterize the

polymer and identify the source? (L4-2, L4-3)

- Will studies be performed to determine if catalytic decomposition effects of metal, metal-complex, or surfaces can be removed? Are there plans to characterize the chemical and potential catalytic properties under the Small Tank Precipitation option? (L4-4, L4-5)

- Are there tests planned to characterize resins in regard to performance, fouling, decomposition, and safety hazards using actual HLW prior to approval for use at production levels? (L4-6)

DOE Response: DOE is conducting an extensive program of research and development on each of the salt processing alternatives. Work is being done at the Savannah River Technology Center and at Oak Ridge, Sandia, Pacific Northwest, and Argonne National Laboratories. Because the decomposition of sodium TPB catalyzed by copper and palladium (and possibly other elements and compounds) caused the high rates of benzene generation in the ITP process, extensive studies of potential catalysts and methods to reduce or eliminate their impacts on the reaction are part of the research and development effort. Similarly, characterization of resin performance in a highly radioactive environment is the focus of studies on the Ion Exchange alternative.

- Are the results of the technology studies intended to coincide with the development of the SEIS? When the SEIS is published in draft, will the trade studies or the research and development studies also be made available for public review? Is there any way that the resolution of the technical issues will be communicated to the public as they begin to review the draft SEIS? (TC-8, TC-18, TNA-8)

DOE Response: Technology research and development studies are being carried out in parallel with the development of the SEIS. The results of the studies are being made available for public review. Research and development reports and test results are available now on the SRS web site at www.srs.gov/general/srtech/spp/randd.htm, and can be reviewed in conjunction with this Draft SEIS.

- Will cost be included in the scope of the SEIS to differentiate between alternatives? Will cost studies for the alternatives be prepared? Is there any feel yet on an order of magnitude basis for the comparative costs? Are they all about the same? How much money is needed to go through the analytical portion and the research and development to select the right alternative? And how much do you have? (TC-17, TC-32)

DOE Response: Preliminary cost estimates have been prepared and are included in Section 2.8.3 of the SEIS. Cost does not provide any differentiation between alternatives in regard to environmental impacts. Initial estimates of cost are from $900 million to $1.2 billion, such that costs of all the alternatives are in the same range. DOE funded about $17 million for the research and development effort in Fiscal Year 2000 and about $29 million in Fiscal Year 2001 to ensure that the alternative ultimately selected will achieve the salt processing and safety goals.

- Would it be correct to say that the cesium grout is probably the quickest and the cheapest alternative to implement? Is that why it is attractive? Money spent on this would take away from something else. (TNA-7)

DOE Response: The greatest attraction of the Direct Disposal in Grout alternative is that it has no technical uncertainty. Estimated costs of implementation of the alternatives are similar, given the preliminary state of the designs.

- Do you believe there are any showstoppers in those five technical issues that you talked about? (TNA-9)

DOE Response: DOE decided to carry out additional research and development to ensure that any alternative selected could in fact be implemented. Certain elements of the technologies

have not been demonstrated, like the continuous processing of the Small Tank Precipitation alternative. DOE has found no fatal flaws in any of the four alternatives.

- If the SEIS is approved a year from now, when would your process be operating? (TNA-19)

DOE Response: DOE intends to have the selected salt processing alternative operating in about Fiscal Year 2010, assuming a two-year startup period.

- There should be an evaluation of the impacts of different time periods for the four alternatives and the impacts they will have on waste tank operations and the availability of tank space. (TNA-26)

DOE Response: Waste tank utilization is discussed in Chapter 2 and Appendix A. DOE is committed, through the Federal Facility Agreement, to remove waste from tanks on an agreed-upon schedule. DOE intends to manage the selection, construction, and operation of a replacement salt processing facility, such that these commitments can be met.

Comments About Schedule and Process:

- What is the schedule for completion of the studies and the facility? (TC-16)

DOE Response: Planned startup of the new salt processing facility is about 2010. DOE expects to complete research and development and identify a preferred technology by June 2001. Results of research and development studies will be an important factor in the technology selection. Decision by Summer 2001 is critical to selecting a design contractor, initiating pilot-scale studies of the selected technology, and ultimately, bringing a salt processing alternative on line in time to meet SRS commitments for HLW vitrification and HLW tank closure.

Comments About Criteria and Regulations:

- What is the status of discussions on the Direct Disposal in Grout alternative with the regulators, and what kind of reaction have you gotten? What are the responsibilities of the U.S. Nuclear Regulatory Commission (NRC) versus the U.S. Environmental Protection Agency (EPA) or the South Carolina Department of Health and Environmental Control (SCDHEC)? (TNA-6)

DOE Response: DOE has discussed the Direct Disposal in Grout alternative with SCDHEC and EPA, in the context of the permitted saltstone disposal facility. The NRC is not involved in permitting the saltstone disposal facility. DOE believes that it would be able to demonstrate that the low-activity salt fraction processed under any action alternative could appropriately be managed as LLW under the waste incidental to reprocessing criteria in DOE Manual 435.1-1.

Comments About Miscellaneous Topics:

- ARCTECH wishes to submit information about our *HUMASORB-CS*™ absorbant technology for the In-Tank Precipitation process. ARCTECH is demonstrating application of the product under the Federal Energy Technology Industry Programs supported by DOE. ARCTECH believes the product can provide a safe and cost-effective solution for separation of the high-activity waste fraction. We request that DOE consider this for further evaluation and design of an applicability approach. (L3-1, L3-2, L3-3, L3-4)

DOE Response: The *HUMASORB-CS*™ product is utilized in an organic resin form that must be disposed of once the material is loaded with contaminants. The disposal process recommended by ARCTECH is incineration of the combustible organic resin for volume reduction and ash disposal. This resin-processing method does not meet final waste form requirements and

would potentially require major modifications to the vitrification process. Specifically, the limits on the amount of carbon-based material that could be fed to the DWPF melter would be exceeded. The melter cannot function as an incinerator and could be damaged if used in that capacity.

- Consider the life-cycle costs for all options, including institutional care for all four options. (R-2)

DOE Response: Because facility construction and operation costs are still very preliminary, reliable life cycle cost data will not be available when the technology selection is made.

- Evaluate the impact of the Direct Disposal in Grout alternative on the proliferation resistance of the HLW canisters. Proliferation resistance to terrorists who might be tempted to recover the plutonium from the vitrified canisters to build nuclear weapons depends upon the high radiation fields from the presence of cesium-137 in the HLW. Removing the cesium-137 from the vitrification process and disposing of it in grout in the ground at SRS means that the radioactive cesium will not be available to enhance the proliferation resistance of the plutonium in canisters of vitrified HLW. (R-5)

DOE Response: The National Academy of Sciences (1994) has suggested two "complementary" standards to maintain proliferation resistance during weapon and plutonium dismantlement, storage, and disposition. The *stored weapon standard* would mean the "high standards of security and accounting applied to storage of intact nuclear weapons should be maintained for these materials throughout these processes." The *spent fuel standard* would mean that the plutonium is "roughly as inaccessible for weapons use as the much larger and growing stock of plutonium in civilian spent fuel." The NRC and the International Atomic Energy Agency consider materials emitting more than 100 rad per hour at 1 meter (the radiation part of the spent fuel standard) to be sufficiently self-protecting to require a lower level of safeguarding. DWPF canisters without cesium-137, such as the "sludge only" canisters being produced now, emit about 1 to 2 rads per hour at 1 meter, well above the yearly administrative limit of 0.5 rad for SRS workers, but well below the self-protecting standard. Canisters with cesium could emit hundreds of rad per hour. Canisters produced using the Direct Disposal in Grout alternative would not meet the self-protecting requirement without the addition of another radiation source. Therefore, the Direct Disposal in Grout alternative, as currently designed, does not support plans to meet the spent fuel standard for plutonium immobilized in HLW canisters.

- Is the Salt Processing Engineering Team Final Report a publicly available document? (TC-10)

DOE Response: Yes. This report has been made available in the DOE reading room cited in this SEIS.

- Before DWPF, were there problems with precipitated material that was difficult to get out of the tanks? (TC-15)

DOE Response: DOE has recognized for a long time that sludges in the HLW tanks might be difficult to remove. However, the technology exists to overcome this problem and has been demonstrated in the waste removal and closure of Tanks 17 and 20. This issue is discussed in detail in the Draft *HLW Tank Closure EIS* (DOE 2000).

- How much are Citizens Advisory Board advice or suggestions taken into account? (TC-18, TNA-15)

DOE Response: Recommendations from the SRS Citizens Advisory Board are always taken very seriously and considered very carefully. An SRS Citizens Advisory Board focus group reviewed the technology selection process that led to the four alternatives currently being considered, and the SRS Citizens Advisory Board has provided recommendations on the scope of this SEIS.

- What do you plan to do with the large tanks that have already been treated with TPB? (TNA-17)

DOE Response: Two tanks were used for processing activities using TPB. DOE intends to return Tank 49 to service. DOE is reviewing options and has not decided what to do with Tank 48.

References

DOE (U.S. Department of Energy), 2000. *Savannah River Site High-Level Waste Tank Closure Draft Environmental Impact Statement*, DOE/EIS-0303D, Office of Environmental Management, Washington, D.C.

NAS (National Academy of Sciences), 1994. *Management and Disposition of Excess Weapons Plutonium*, National Academy Press.